

IN THE CLAIMS:

Please cancel claims 11, 20-26, and 30 without prejudice to, or disclaimer of, the subject matter recited therein.

Please amend claims 1-5, 6, 8-13, 16, 17, and 30 to read as follows¹:

1. (Three times amended) A nucleotide or polynucleotide sequence deleted from the genomes of *M. bovis* BCG, *M. bovis*, and *M. microti* OV254, and present in the genome of *M. tuberculosis*.

2. (Three times amended) The nucleotide or polynucleotide sequence according to claim 1, wherein the nucleotide or polynucleotide sequence is present in nucleotide region RD5, RD6, RD7, RD8, RD9, or RD10.

3. (Twice amended) A method for discriminating *M. bovis* BCG, *M. bovis*, or *M. microti* OV254, from *M. tuberculosis* in a biological sample, the method comprising:

(A) isolating DNA from the biological sample or producing cDNA from RNA of the biological sample; and

(B) analyzing said DNA or cDNA sequences with the nucleotide or polynucleotide sequence as claimed in claim 1.

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1. The text added and deleted by this amendment is indicated in the Appendix.

4. (Twice amended) The method as claimed in claim 3, wherein the analysis of the DNA or cDNA sequences is carried out using nucleotide sequences complementary to said DNA or cDNA sequences.

5. (Twice amended) The method as claimed in claim 3, wherein the analysis of the DNA or cDNA sequences is carried out by amplifying the sequences using primers.

6. (Twice amended) The method as claimed in claim 5, wherein the primers have a nucleotide sequence chosen from the group comprising SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 9, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, and SEQ ID No. 14, and wherein:

(A) the pair SEQ ID No. 1/SEQ ID No. 2 is specific for RD4;

(B) the pair SEQ ID No. 3/SEQ ID No. 4 is specific for RD5;

(C) the pair SEQ ID No. 5/SEQ ID No. 6 is specific for RD6;

(D) the pair SEQ ID No. 7/SEQ ID No. 8 is specific for RD7;

(E) the pair SEQ ID No. 9/SEQ ID No. 10 is specific for RD8;

(F) the pair SEQ ID No. 11/SEQ ID No. 12 is specific for RD9; and

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(G) the pair SEQ ID No. 13/SEQ ID No. 14 is specific for RD10.

8. (Twice amended) A method for discriminating *M. bovis* BCG, *M. bovis*, or *M. microti* OV254, from *M. tuberculosis* in a biological sample, wherein the method comprises:

(A) bringing the biological sample into contact with at least one pair of primers as defined in claim 6;

(B) amplifying the DNA of the mycobacterium; and

(C) visualizing the amplified DNA fragments.

9. (Twice amended) A kit for discriminating *M. bovis* BCG, *M. bovis*, or *M. microti* OV254, from *M. tuberculosis* in a biological sample, wherein the kit comprises:

(A) at least one pair of primers as defined in claim 6;

(B) reagents necessary to carry out a DNA amplification reaction; and

(C) components to characterize the amplified fragment by size and/or sequence.

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10. (Twice amended) A method of amplifying a DNA sequence from *M. bovis* BCG, *M. bovis*, *M. microti* OV254, or *M. tuberculosis*, wherein the method comprises hybridizing at least one pair of primers of claim 6 to the DNA sequence.

12. (Twice amended) An *in vitro* method for discriminating antibodies directed against *M. bovis* BCG, *M. bovis*, or *M. microti* OV254, from antibodies directed against *M. tuberculosis* in a biological sample, wherein the method comprises:

(A) bringing the biological sample into contact with at least one product as defined in claim 11, and

(B) detecting the antigen-antibody complex formed.

13. (Three times amended) A method for discriminating a vaccination with *M. bovis* BCG, *M. bovis*, or *M. microti* OV254 from an infection by *M. tuberculosis* in a mammal, wherein the method comprises:

(A) preparing a biological sample containing cells of the mammal;

(B) incubating the biological sample with at least one product as defined in claim 11; and

(C) detecting a cellular reaction indicating prior sensitization of the mammal to said product.

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16. (Twice amended) A method for discriminating an antigen of *M. bovis* BCG, *M. bovis*, or *M. microti* OV254 from an antigen of *M. tuberculosis* in a biological sample, wherein the method comprises:

(A) bringing the biological sample into contact with an antibody as claimed in claim 15; and

(B) detecting the antigen-antibody complex formed.

17. (Twice amended) A kit for discriminating the presence of an antigen of *M. bovis* BCG, *M. bovis*, or *M. microti* OV254 from an antigen of *M. tuberculosis* in a biological sample, wherein the kit comprises:

(A) an antibody as claimed in claim 15;

(B) reagents for constituting the medium suitable for the immunological reaction; and

(C) reagents allowing the detection of the antigen-antibody complexes produced by the immunological reaction.

Please add new claims 34-43 as follows:

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34. (New) The nucleotide or polynucleotide sequence according to claim 1, wherein the nucleotide or polynucleotide sequence is present in nucleotide region RD5.

35. (New) The nucleotide or polynucleotide sequence according to claim 1, wherein the nucleotide or polynucleotide sequence is present in nucleotide region RD6.

36. (New) The nucleotide or polynucleotide sequence according to claim 1, wherein the nucleotide or polynucleotide sequence is present in nucleotide region RD7.

37. (New) The nucleotide or polynucleotide sequence according to claim 1, wherein the nucleotide or polynucleotide sequence is present in nucleotide region RD8.

38. (New) The nucleotide or polynucleotide sequence according to claim 1, wherein the nucleotide or polynucleotide sequence is present in nucleotide region RD9.

39. (New) The nucleotide or polynucleotide sequence according to claim 1, wherein the nucleotide or polynucleotide sequence is present in nucleotide region RD10.

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40. (New) The nucleotide or polynucleotide sequence according to claim 1, wherein the nucleotide or polynucleotide sequence is present in an ORF or gene selected from: Rv2346c, Rv2347c, Rv2348c, *plcC*, *plcB*, *plcA*, Rv2352c, Rv2353c, Rv3425, Rv3426, Rv3427c, Rv3428c, Rv1964, Rv1965, *mce3*, Rv1967, Rv1968, Rv1969, *lprM*, Rv1971, Rv1972, Rv1973, Rv1974, Rv1975, Rv1976c, Rv1977, *ephA*, Rv3618, Rv3619c, Rv3620c, Rv3621c, Rv3622c, *IPqG*, *cobL*, Rv2073c, Rv2074, Rv2075, *echA1*, or Rv0223c.

41. (New) The method of claim 25, wherein the cells of the immune system are T cells.

42. (New) A product of expression of all or a part of an ORF or gene of claim 40.

43. (New) A method for discriminating a vaccination with *M. bovis BCG*, *M. bovis*, or *M. microti* OV254 from an infection by *M. tuberculosis* in a mammal, wherein the method comprises:

- (A) preparing a biological sample containing cells of the mammal,
- (B) incubating the biological sample with at least one product as defined in claim 42, and,

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